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Agriculture's Share in the National Income

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CONTENTS

AGRICULTURE'S SHARE IN THE NATIONAL INCOME

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Agriculture's share in the national income is a matter of national importance. The amount received by agriculture is, and for years has been, relatively small when compared with the amounts received by other producing groups in the national economy. But the effect of farm income on general business conditions over the country is far more powerful than its relative dollar importance indicates.

The amount of farm income received in a given year determines, in the first instance, the poverty or well-being of the 25 percent of America's population living on farms. From the farmers it passes to the further 20 percent of the population located in the villages and towns of the rural areas of the United States. A large part of the people in this group depend for their livelihood on services rendered to farmers in connection with trade, local government, the professions, education and so forth—services whose continuance is conditioned by farmers' capacity to pay. Thus the welfare of perhaps 40 percent of the population that lives on farms and in communities in rural areas is dependent on agriculture's income and its expenditure in the immediate vicinity of the farms.

By way of the trading centers in rural areas, or directly in the form of mail orders, farm purchasing power is also passed on to urban groups. Workers in factories, especially factories making goods that farmers buy, depend for their employment upon the continuance of farm orders. The stability of the credit structure of the country, of the banks, life insurance companies, and other investing agencies, is similarly related to the financial soundness of the farm areas.

A share of the national income which affects some 40 percent of the population directly and has a noticeable influence on the economic welfare of the other 60 percent is obviously a matter of national concern.

The charts and tables in this pamphlet have been assembled to present, in more or less consecutive form, material on—

- The national income at various periods in the national life and the contribution made to that total by agriculture;
- The gross income of the farmers of the country; their cash income; the income available to them after meeting their production costs;
- The purchasing power of these different types of income; and
- The interrelation between the income and purchasing power of farm and city in the national economy.

The study is intended to supply material for the current discussion as to what share of the national income is a fair share for the farmer, and what effect on the national economy changes in the farmers' share of the national income may be expected to have.

The Secretary of Agriculture has recently suggested some considerations which are basic to a discussion of what would be a fair share of the national income for the farmer. He said:

> I would like to be able to offer a neat and precise formula, but I can't, and I know of no one who can. We can, however, make some progress by agreeing upon a general definition, and it will also be useful to examine the past course of farm income in relation to national income. That general definition must certainly include some reference to a decent standard of human living, to the maintenance of a balanced flow of production to an adequate or perhaps a maximum consumption, and to the conservation of soil fertility. Having in mind the permanent welfare of our country, we might phrase the definition of "fair share" as follows: Farmers will have a fair share of the national income when their share is sufficient (1) to maintain a flow of production in balance with the needs of a maximum consumption, (2) to provide for decent human living, and (3) to achieve these ends without impoverishing the soil.

The long-time decline in agriculture's contribution to the national income, temporarily reversed during the Civil War and the World War, and accentuated during the depression following 1929, has been due to a variety of causes. As American population has grown and the American economic system has developed, the number of people living in cities while producing the goods and services which they contribute to the Nation's income has been continually increasing in relation to the number of people who have produced their contribution on farms.

In consequence, the relative importance of the contributions of farmers to the national income from the production of goods and services, has been subject to a long-time declining tendency. The production of minerals and the production of industrial goods have expanded at rates considerably in excess of the rate of expansion of agricultural commodities; the importance of manufacturing industries using chiefly agricultural raw materials, when compared with all manufacturing industries, has consequently declined. The complicated relationships of urban society have called into being increased services to distribute the goods created, and have made new demands upon government.

The fluctuations in the gross income received by farmers as a group in recent years have been due more to fluctuations in price than to fluctuations in production.

For the past 20 years, farm prices, and consequently farm income, have been greatly affected by the export market. The recent falling off in the export market for American agricultural products has had a marked effect upon farm income; the low prices received by farmers

during the years after their channels for exports began to close is traceable to a production of farm commodities greater than available markets could absorb.

Following 1929, American agricultural prices moved downward out of line with the prices of other commodities and out of line with the prices received by distributors for their services in connection with agricultural commodities.

The crop-adjustment measures first taken in 1933 halted this decline. The market effect of these measures, to which, in 1934, was added the effect of the drought, has been to raise prices from their depression low points. The income from increased prices received by farmers when marketing their produce has been augmented, in the case of farmers cooperating in the commodity-control programs under the Agricultural Adjustment Act, by rental and benefit payments. These payments have been calculated to lift the returns received by cooperating farmers toward a level of farm purchasing power comparable to the level of farm purchasing power before the war.

The fluctuations in gross farm income since 1910 give a certain idea of the ups and downs of agriculture during that period. But because farm prices have been out of line with other prices, the changes in the economic position of the American farmer over the last generation are better realized if the changes in his costs for the same years are also taken into account. In the post-war period, and particularly since the depression, the course taken by prices and production of farm commodities has differed materially from the course taken by prices and production of industrial commodities, including those that farmers buy. Farm tax rates and rates of interest on farm mortgages likewise moved independently of farm income. Fluctuations in necessary expenditures have therefore to be compared with fluctuations in gross income when estimating the position of the farmer as a producer.

The returns obtained from farming differ not only from year to year but from section to section of the country in a given year.

The net return to the farmer from his enterprise can be calculated by subtracting from his gross income the amount spent on production costs. The farmer's net return from his business determines the amount available for the farm-family living. Farm income available after deducting production costs includes both goods raised and consumed on the farm and money to be expended for other goods made by other groups in the economic community. In order to gain an adequate idea of what the income exchanged for outside goods and services actually provides for the farm-family living, it is necessary to relate it to the changing price level of the city-made goods for which it is normally spent. In determining the farm standard of

living the purchasing power of such income at any given time is more important than its dollar value.

The farmer's receipts from marketings constitute his cash income, and directly affect his capacity to buy city-made goods, both the goods he needs for use in production and the goods he needs for consumption in the farm home. The quantity of such commodities that farm cash income will buy depends in turn on the current price level of the goods for which farm cash income is spent.

The income which farmers spend, both on the goods they consume in production and the goods they consume as part of the farm-family income, is clearly of great importance to the industries and the city workers that make those goods as well as to the farmers purchasing them.

Farm and urban income are doubly related to each other. The direct relationship between the course taken by farm cash income and rural retail sales indicates the effect which the ups and downs of agriculture have upon other sections of the economic community. Declining farm income and rural bank suspensions are closely connected. A comparison of farm expenditures with pay rolls in the farm implement and fertilizer industries demonstrates in a peculiarly direct fashion the effect of farm buying power on the welfare of city workers.

Urban purchasing power, on the other hand, is no less important to the farmer than farm purchasing power is to the city dweller. At least a third of the consumer's dollar is spent for food, and another 10 or 12 percent for clothing that is made, for the most part, of American farm-grown fibers. The retail value of meat and dairy products consumed is a fairly constant percentage of the national income; the amounts received by farmers for those products closely follow the volume of factory pay rolls. Expansion or contraction of city food purchases affects the farm market as vitally as expansion or contraction of farm purchases of city-made goods affects urban well-being.

In the long run, neither farm nor city can prosper independently of the other. The relative decline in agricultural purchasing power which came at the end of the 1920's definitely accelerated the subsequent urban disaster. The farm revival in 1933–34 had an equally definite effect in terms of industrial improvement. The course followed by the purchasing power of wage and salary payments and by the purchasing power of available farm income since 1910, particularly when presented on a per capita basis, clearly shows that the country's most prosperous periods have been the periods when farm and urban income have been in closest balance with each other.

PART I—FARM INCOME AND ITS PURCHASING POWER

The pages that follow in part I present quantitative estimates of farm income and its purchasing power.

Four classifications of farm income are in common use. It is important that the methods used in calculating the four classifications, and the differences between them, be made clear at the start. The four types are:

Agriculture's contribution to the national income.
Gross farm income.
Farm income available after production expenses.
Farm cash income.

Agriculture's Contribution to the National Income is regarded as the contribution of farmers to the total net money income from production of goods and services by the various groups of workers whose activities constitute the national economy. When computations of the national income defined as above are made, agriculture's contribution to the total is computed as follows: To gross farm income is added an allowance for the rental value of farmhouses. From this total are subtracted operating expenses, taxes, and that part of mortgage interest applicable to farmhouses. The balance, which includes farm wages and mortgage interest other than that on farmhouses, is taken as agriculture's contribution to the national income.

Agriculture's contribution to the national income should not be confused with the various types of income which the farmer receives and spends as an individual. It is important to have a figure to express the total contribution to national income that is jointly made by America's various producing groups. In order to compute such a figure, it is necessary to cut out overlapping items. For example, that part of a farmer's income which he pays out as taxes must be deducted from his contribution to the national income because it is really a payment for services which he receives from other members of the community, services which appear in the national income as the contribution of county officials, teachers, police, and so forth. Because of this and other deductions to prevent overlapping, the amount annually designated as agriculture's contribution to the income of the Nation is different from agriculture's income when considered as the aggregate of the individual incomes received by farmers, and care should be taken not to confuse the two concepts.

Gross Farm Income is the total value, at average farm prices, of farm products used by the farm family, stored or sold.

Farm Income Available After Production Expenses is the amount remaining to farmers after deduction of production expenses from gross farm income. It is the amount which the farmer receives as a return from his labor and interest on his capital investment. It is the return for the farmer's capital, labor, and management and becomes the amount available for farm-family living.

Farm Cash Income is the income from the part of the agricultural production that is marketed in a given year; since the passage of the Agricultural Adjustment Act farm cash income also includes the benefits and other payments made to cooperating farmers as a result of the various commodity programs. Farm cash income represents the money purchasing power of agriculture for city-made goods.

Estimates of these four different classifications of farm income, together with figures on the purchasing power of the amounts spent for city-made goods, are contained in succeeding pages.

Table 1, on national income from the production of goods and services and agriculture's contribution to it, displays the total income realized from production of goods and services in the United States, by 10-year periods from 1850 to 1910, and annually thereafter, together with the part contributed to that total by agriculture. Along with these figures, expressed in current dollars, agriculture's contribution is also shown expressed in percentage form. The annual percentage figures show a decline in agriculture's contribution uninterrupted except for the two war periods of 1860 and 1915–20, from 33.6 percent of the whole in 1850 to 7.5 of the whole in 1932, with a recovery to 10.2 percent in the year 1934.

When agriculture's contribution for each of the years listed is expressed as a percentage of its contribution in the years 1910–14, the period taken as the "parity" period in the Agricultural Adjustment Act, it is seen that the proportion of the national income contributed by agriculture in 1850 was 97 percent greater than in 1910–14; that in 1900 it was 6 percent greater; in 1920 it was 1 percent less, and in 1930 it was 49 percent less. In 1932 it reached a low of 56 percent less than before the war; during the following 2 years it climbed back to 40 percent less than its pre-war proportion.

Agriculture's largest contribution, expressed in current dollars, was $12,182,000,000 in 1919; its smallest, $3,582,000,000 in 1932.

Table 1.—*National income from goods and services and agriculture's contribution to it*

Year	National income	Contributed by agriculture		Agriculture's annual contribution compared with 1910–14=100
	Million dollars	*Million dollars*	*Percent*	*Percent*
1850	1, 579	530	33. 6	197
1860	2, 707	1, 002	37. 0	217
1870	5, 424	1, 534	28. 3	166
1880	6, 434	1, 786	27. 8	163
1890	10, 504	2, 294	21. 8	128
1900	15, 522	2, 815	18. 1	106
1909	26, 430	4, 988	18. 9	111
1910	28, 024	5, 218	18. 6	109
1911	28, 376	4, 815	17. 0	100
1912	30, 358	5, 294	17. 4	102
1913	31, 909	5, 133	16. 1	95
1914	31, 669	5, 081	16. 0	94
1915	33, 083	5, 488	16. 6	98
1916	38, 884	6, 631	17. 1	100
1917	46, 575	9, 188	19. 7	116
1918	54, 784	11, 205	20. 5	120
1919	59, 550	12, 182	20. 5	120
1920	65, 928	11, 057	16. 8	99
1921	55, 430	6, 967	12. 6	74
1922	57, 926	7, 300	12. 6	74
1923	65, 949	8, 026	12. 2	72
1924	68, 461	8, 325	12. 2	72
1925	73, 067	9, 089	12. 4	73
1926	74, 954	8, 214	10. 9	64
1927	76, 007	8, 371	11. 0	65
1928	77, 291	8, 109	10. 5	62
1929	79, 702	8, 254	10. 4	61
1930	72, 890	6, 320	8. 7	51
1931	60, 790	4, 659	7. 7	45
1932	47, 900	3, 582	7. 5	44
1933	46, 030	4, 557	9. 9	58
1934 [1]	51, 920	5, 287	10. 2	60

[1] Preliminary estimate.

Table 2 gives the figures contained in table 1 on a per capita basis. During the years from 1850 to 1914, both farm and city population were growing, but city population was growing faster than farm population. From the beginning of the World War until 1931, farm population, with three exceptions, was less each year than it had been the year before, while total population increased every year. From 1931 to 1934 farm population increased by almost 2 million while total population increased by only 2½ million. These changes in numbers of farm and city dwellers, when related to changes in national income, give per capita figures that are somewhat more indicative of the agricultural situation than are the undivided totals of national income and agriculture's contribution to it.

Agriculture's per capita contribution to national income, as the percentage figures for the years shown in the table make clear, has only once been less than 33 percent below the general per capita average for all groups; during the 1920's it ran over 55 percent below the general average; in 1932 it was 70 percent below; and in 1934 it was 60 percent below.

Table 1 shows that agriculture's contribution to national income declined 46 percent between 1910 and 1934. Table 2 shows that agriculture's per capita contribution to national income declined 25 percent between 1910 and 1934. About half of the decline in agriculture's contribution to national income is therefore explained by shifts in population; the other half of the decline must be explained by other causes.

TABLE 2.—*National income per capita and agriculture's per capita contribution to it*

Year	Population: Total United States	Population: Farm	Per capita contribution to national income: Total	Per capita contribution to national income: Farm	Relation of farm to total	Relation of farm to total compared with 1910-14=100
	Thousands	*Thousands*	*Dollars*	*Dollars*	*Percent*	*Percent*
1850	23, 192	11, 680	68	45	67	133
1860	31, 443	15, 141	86	66	77	153
1870	39, 818	18, 373	136	83	61	123
1880	50, 156	22, 981	128	78	61	121
1890	62, 948	26, 379	167	87	52	104
1900	75, 995	29, 414	204	96	47	94
1909	89, 882	32, 000	294	156	53	106
1910	91, 479	32, 077	306	163	53	107
1911	92, 975	32, 110	305	150	49	98
1912	94, 389	32, 120	322	165	51	102
1913	95, 805	32, 120	333	160	48	96
1914	97, 220	32, 100	326	158	48	97
1915	98, 636	32, 050	335	171	51	103
1916	100, 050	31, 990	389	207	53	106
1917	101, 466	31, 930	459	288	63	125
1918	102, 880	31, 820	533	352	66	132
1919	104, 296	31, 730	571	384	67	134
1920	105, 711	31, 614	624	350	56	112
1921	107, 375	31, 703	516	220	43	85
1922	109, 040	31, 768	531	230	43	87
1923	110, 705	31, 290	596	257	43	86
1924	112, 370	31, 056	609	268	44	88
1925	114, 035	31, 064	641	293	46	91
1926	115, 700	30, 784	648	267	41	82
1927	117, 364	30, 281	648	276	43	85
1928	119, 029	30, 275	649	268	41	83
1929	120, 694	30, 257	660	273	41	83
1930	122, 359	30, 169	596	209	35	70
1931	123, 630	30, 585	492	152	31	62
1932	124, 511	31, 241	385	115	30	60
1933	125, 197	32, 242	368	141	38	77
1934	126, 059	32, 509	412	163	40	79

Table 3 compares gross farm income from 1909 to 1934 with agriculture's contribution to national income as displayed in table 1. The figures for 1933 and 1934 include rental and benefit payments; aside from those payments, the amounts indicated represent the farm value of commodities produced in the years specified and sold, stored for sale later, or used by the farm family. It will be seen that the gross income figures run from 2 to 4 billion dollars higher than the figures on agriculture's contribution to national income because of the difference in basis of computation explained on pages 5 and 6.

Table 3.—*Gross farm income compared with agriculture's contribution to national income*

[In millions of dollars]

Year	Gross farm income	Agriculture's contribution to national income	Year	Gross farm income	Agriculture's contribution to national income
1909	6,238	4,988	1922	9,944	7,300
1910	6,643	5,218	1923	11,041	8,026
1911	6,372	4,815	1924	11,337	8,325
1912	6,784	5,294	1925	11,968	9,089
1913	6,975	5,133	1926	11,480	8,214
1914	7,028	5,081	1927	11,616	8,371
1915	7,395	5,488	1928	11,741	8,109
1916	8,914	6,631	1929	11,941	8,254
1917	12,832	9,188	1930	9,454	6,320
1918	15,101	11,205	1931	6,968	4,659
1919	16,935	12,182	1932	5,331	3,582
1920	13,566	11,057	1933	6,256	4,557
1921	8,927	6,967	1934	7,200	5,287

The balance available after deducting selected expenditures from gross farm income is shown in table 4. The expenditures include payments for wages; feed; fertilizer; taxes; all mortgage interest; ginning expense; purchase and operation of all farm machinery, tractors, trucks, and one-half of passenger automobiles; and harness and saddlery. When these items are subtracted from gross farm income, the difference represents the amount available for farm-family living expenses.

Table 4.—*Farm income available after deduction of production expenses*

[In millions of dollars]

Year	Gross income	Selected expenditures	Balance available	Year	Gross income	Selected expenditures	Balance available
1909	6,238	1,886	4,352	1922	9,944	4,148	5,796
1910	6,643	1,983	4,660	1923	11,041	4,453	6,588
1911	6,372	2,089	4,283	1924	11,337	4,356	6,981
1912	6,784	2,129	4,655	1925	11,968	4,691	7,277
1913	6,975	2,328	4,647	1926	11,480	4,774	6,706
1914	7,028	2,338	4,690	1927	11,616	4,754	6,862
1915	7,395	2,402	4,993	1928	11,741	5,051	6,690
1916	8,914	2,818	6,096	1929	11,941	5,246	6,695
1917	12,832	3,543	9,289	1930	9,454	4,555	4,899
1918	15,101	4,186	10,915	1931	6,968	3,512	3,456
1919	16,935	4,820	12,115	1932	3,331	2,758	2,573
1920	13,566	5,379	8,187	1933	6,256	2,553	3,703
1921	8,927	4,136	4,791	1934	7,200	2,800	4,400

Table 5 shows cash income from farm marketings for the past decade, indicating the main commodity sources from which the income was derived, and including receipts from rental and benefit payments and emergency livestock sales in 1933–34.

TABLE 5.—*Farm cash income, by years, 1924–34*

[In millions of dollars]

Year	Total	Crops	Livestock	Rental and benefit payments and livestock purchases	Year	Total	Crops	Livestock	Rental and benefit payments and livestock purchases
1924	9,785	5,432	4,353	0	1930	8,451	3,792	4,659	0
1925	10,324	5,416	4,908	0	1931	5,899	2,454	3,445	0
1926	9,993	4,900	5,093	0	1932	4,328	1,880	2,448	0
1927	10,016	5,116	4,900	0	1933	4,955	2,437	2,518	162
1928	10,289	5,068	5,221	0	1934	5,831	2,965	2,866	556
1929	10,479	5,080	5,399	0					

The cash income from farm marketings, shown in table 5, is given on a monthly basis in table 6. The receipts from Government sources which began in August 1933 are also shown separately, so that farm cash income from marketings alone can be obtained by subtracting the rental and benefit payments and emergency sales from the total listed above.

TABLE 6.—*Farm cash income by months, 1924–35*

INCLUDING EMERGENCY SALES AND RENTAL AND BENEFIT PAYMENTS

[In millions of dollars]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1924	791	711	615	574	645	613	651	806	1,033	1,267	1,066	1,013	9,785
1925	925	744	728	612	682	712	718	847	1,099	1,186	1,034	1,037	10,324
1926	846	718	722	676	745	798	850	821	973	1,066	944	834	9,993
1927	775	701	744	680	744	746	714	857	1,061	1,175	988	831	10,016
1928	774	740	744	666	841	706	776	795	955	1,292	1,022	978	10,289
1929	897	722	729	722	742	719	846	962	1,030	1,283	921	906	10,479
1930	827	685	643	676	719	646	644	674	780	834	687	636	8,451
1931	589	476	506	497	519	450	476	421	449	555	507	454	5,899
1932	437	382	365	349	357	288	301	324	391	422	377	335	4,328
1933	348	257	279	308	424	441	496	427	559	625	521	432	5,117
1934	490	419	425	389	440	451	532	608	699	796	612	526	6,387
1935	520	454	479	517	519	468	470	592	-------	-------	-------	-------	-------

FROM EMERGENCY SALES AND RENTAL AND BENEFIT PAYMENTS

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1933	------	------	------	------	------	------	------	8	71	54	10	19	162
1934	60	28	9	6	16	29	30	72	76	104	73	53	556
1935	70	52	50	50	36	26	19	45	-------	-------	-------	-------	-------

The preceding tables give basic figures on farm income in current dollars. Wide fluctuations in prices have, however, caused the purchasing power of the dollar to vary widely in the course of the years studied; two further tables are therefore added at this point to translate into current purchasing power the dollar figures for available farm income and farm cash income previously given.

Table 7 makes possible a series of comparisons. The fluctuations in gross farm income may be compared with the fluctuations in the

payments by farmers for items necessary to production. Then the amount left after subtracting production expenses from gross income—that is, the income available for farm-family living—may be compared with current prices of things for which such income is normally spent so as to measure its purchasing power.

TABLE 7.—*Purchasing power of available farm income*

[Index numbers, 1910–14=100]

Year	Gross farm income	Selected expenditures	Balance available	Prices paid for commodities bought for family maintenance	Purchasing power of available income
1909	92	87	95	93	102
1910	98	91	102	98	104
1911	94	96	93	100	93
1912	100	98	102	101	101
1913	103	107	101	100	101
1914	104	108	102	102	100
1915	109	111	109	107	102
1916	132	130	133	124	107
1917	190	163	203	147	138
1918	223	193	238	177	135
1919	251	222	264	210	126
1920	201	247	178	222	80
1921	132	190	104	161	65
1922	147	191	126	156	81
1923	163	205	144	160	90
1924	168	200	152	159	96
1925	177	216	159	164	97
1926	170	220	146	162	90
1927	172	219	150	159	94
1928	174	232	146	160	91
1929	177	241	146	158	92
1930	140	210	107	148	72
1931	103	162	75	126	60
1932	79	127	56	108	52
1933	[1] 95	117	84	109	77
1934	[1] 108	129	98	122	80

[1] Including rental and benefit payments; 1934 figures are subject to revision.

Table 8 indicates the purchasing power, by months and years, for the past decade, of farm cash income. The income figures used are after seasonal adjustment; rental and benefit payments and Government livestock purchases are included in 1933–34. The prices used are the prices of the items for which farm cash income is normally spent, including both the city-made goods used in the production of farm commodities and the city-made goods consumed in the farm home.

TABLE 8.—*Purchasing power of farm cash income*

[Index numbers, 1924–29=100]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
1924	95.5	99.1	86.7	93.5	96.5	95.6	96.0	95.8	99.9	102.8	102.8	103.6	97.2
1925	109.4	103.6	101.5	88.8	89.3	91.7	92.3	105.7	103.0	96.5	102.0	109.0	99.0
1926	101.5	99.3	98.8	103.3	99.8	116.1	110.7	94.5	96.5	91.5	96.1	90.6	100.1
1927	96.3	100.3	108.5	104.8	103.8	108.1	97.6	101.8	101.3	95.8	97.9	90.8	100.5
1928	94.3	102.8	102.6	102.5	118.4	97.3	100.2	89.6	95.5	104.5	103.1	103.1	100.9
1929	106.6	100.5	102.0	105.6	94.1	94.8	112.4	108.6	103.1	103.3	93.8	98.9	102.4
1930	100.1	97.0	89.9	102.0	98.9	92.2	82.4	86.1	86.2	82.0	79.3	77.7	90.3
1931	78.8	77.1	81.2	83.6	78.9	70.4	74.6	62.0	63.1	65.6	70.6	67.2	74.3
1932	71.7	75.1	70.9	72.2	66.5	56.6	58.4	55.5	60.3	56.5	58.5	56.1	64.1
1933	66.2	56.5	58.7	72.4	96.5	105.1	113.4	71.2	77.8	73.3	69.9	73.9	77.9
1934	80.8	76.9	76.5	77.9	77.8	87.9	96.7	90.9	79.7	86.0	78.5	76.0	82.1
1935	77.1	76.9	79.7	90.8	82.9	77.1	77.0	83.6	------	------	------	------	------

PART II—FACTORS AFFECTING FARM INCOME

The figures on farm income and its purchasing power given in part I present the fundamental data for a study of agriculture's share in the national income.[1] The charts contained in part II are based upon those figures. They present, in graphic form, the relationships between farm income of various types and other economic factors closely associated with it.

These charts are grouped according to their connection with three different aspects of these relationships. The first group, comprising charts I to V, inclusive, deals with long-term changes; the second group, comprising charts VI to XIII, deals with recent price disparities; the third group, comprising charts XIV to XXI, deals with farm and city buying power.

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[1] Statistics and charts in this report are based largely on data contained in the Brookings Institution publication, "America's Capacity to Consume"; "National Income, 1929-32", a U. S. Department of Commerce publication; Bureau of Labor reports; U. S. Department of Agriculture reports; various income compilations by Willford I. King, and census data. Extension of annual series obtained from sources mentioned, to include recent years, was done by the Agricultural-Industrial Relations Section of the Program Planning Division, Agricultural Adjustment Administration. Many of the data here set forth have not been previously published.

Chart I. Agriculture's Contribution to the National Income

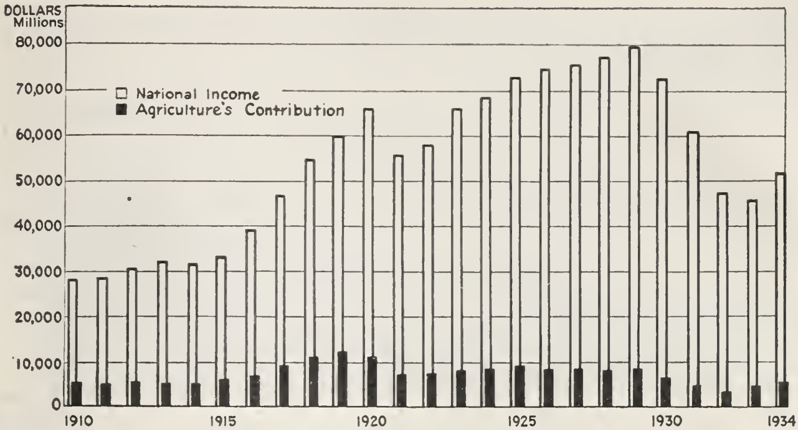
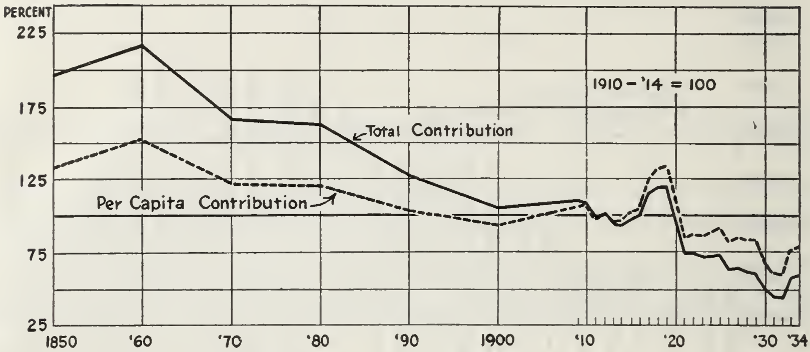


Chart I gives in graphic form, for the years since 1910, the dollar figures contained in table 1 on agriculture's contribution to the national income. Agriculture's contribution was 18.6 percent in 1910. It declined to 16 percent in 1914. After a war-time rise, it was 16.8 percent in 1920, and dropped to 12.6 percent during the depression of the following year. From 1921 to 1925 it remained fairly stationary at slightly over 12 percent; from 1926 to 1929 it was just over 10 percent. Following the 1929 depression it sank to a low of 7.5 percent in 1932. By 1934, it had returned to 10.2 percent. The percent of the farm contribution to the total national income for the year 1934, however, was only 60 percent of the average annual percent of the farm contribution to the total national income in the years 1910–14.

The charts that follow show the relationship between agriculture's contribution to the national income and some of the more important factors which have affected it in recent years.

Chart II. Comparison of Agriculture's Contribution in Parity Period with Other Years



The period 1910–14 has been taken in the Agricultural Adjustment Act as a "parity" period when an economic balance existed between agriculture and the Nation's other producing groups. Chart II shows the variations in the portion contributed by agriculture to the national income during the years before and after that period, as percentages of the portion contributed during that period. The solid line shows the variations in agriculture's total contribution; the broken line shows the variations in its per capita contribution. The chart makes clear the consistent disadvantage of agriculture since the war. Before 1929, the decline in agriculture's per capita contribution had offset the war-time advance; the 1932 contribution was further below the pre-war average than the war-time peak was above it. Between 1932 and 1934 the farmer's contribution recovered about half the distance lost since 1920.

Chart III. Agriculture's Proportion of Gainfully Employed Persons

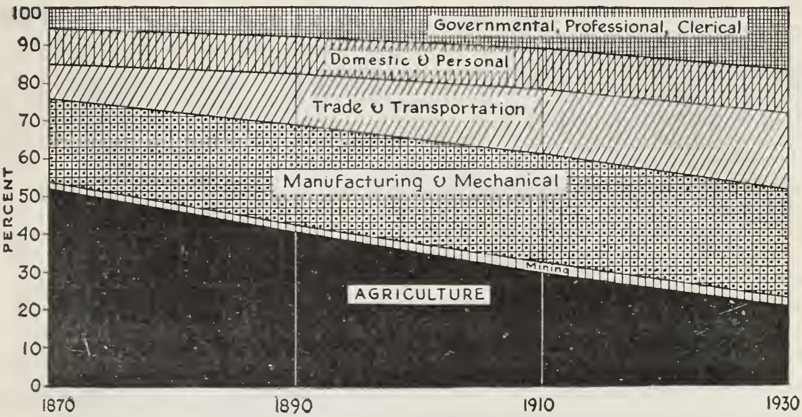


Chart III shows how America's working population has been distributed among various occupations at intervals during the last 60 years. The percentage of gainfully occupied persons 16 years of age or over, engaged in agriculture, dropped from just over half the total in 1870 to just over a fifth of the total in 1930. From 1870 to 1910 the number of persons engaged in farming rose only from 6,428,000 to 10,872,000 while the total number of gainfully occupied persons rose from 12,164,000 to 35,845,000. This relative loss among farmers became an actual loss between 1910 and 1930, when the total number of persons working in agriculture, 10,242,000, was less than in 1910. At the same time that the number of farmers was diminishing, the number of workers in other lines was growing from 35,845,000 to 48,163,000.

The relative percentages for the different occupation groups at 20-year intervals since 1870 have been as follows:

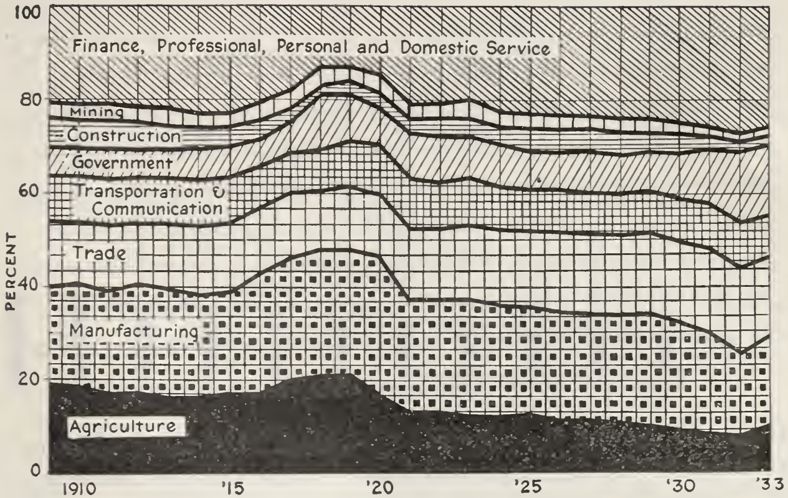
GAINFULLY OCCUPIED PERSONS 16 YEARS OF AGE OR OVER

[Percent]

	1870	1890	1910	1930
Agriculture	52. 8	41. 2	30. 3	21. 3
Mining	1. 5	1. 8	2. 6	2. 0
Manufacturing and mechanical	22. 0	26. 3	28. 6	28. 6
Trade and transportation	9. 1	13. 6	17. 4	20. 7
Domestic and personal services	9. 6	9. 7	10. 6	11. 3
Professional and clerical services, including governmental	5. 0	7. 4	10. 5	16. 1
Total	100. 0	100. 0	100. 0	100. 0

It was to be expected that such a drop in the relative number of persons engaged in agriculture would be reflected in a decline in agriculture's contribution to the national income. The drop which actually took place in that contribution, however, was about twice as great as that which could have been explained on the basis of shifts in occupation of the country's population.

Chart IV. Contributions of Farmers and Others to National Income



Recent changes in occupation were indicated by chart III. Chart IV shows the relative contributions to national income of the various groups of producers in American economic society since 1909. In the course of the years covered, the contributions of agriculture, mining, and construction all declined; those of manufacturing, transportation, and communication remained relatively constant; those of trade and government and the miscellaneous groups that include finance and professional, personal, and domestic services, all increased.

Agriculture's contributions fell from 18.6 percent of the national income in 1910 to 16.8 percent in 1920 and 8.7 percent in 1930. The number of persons gainfully occupied in agriculture fell only from 30.3 to 21.3 percent of the total gainfully occupied population during those same years.

Chart V. Production in Agriculture and Industry

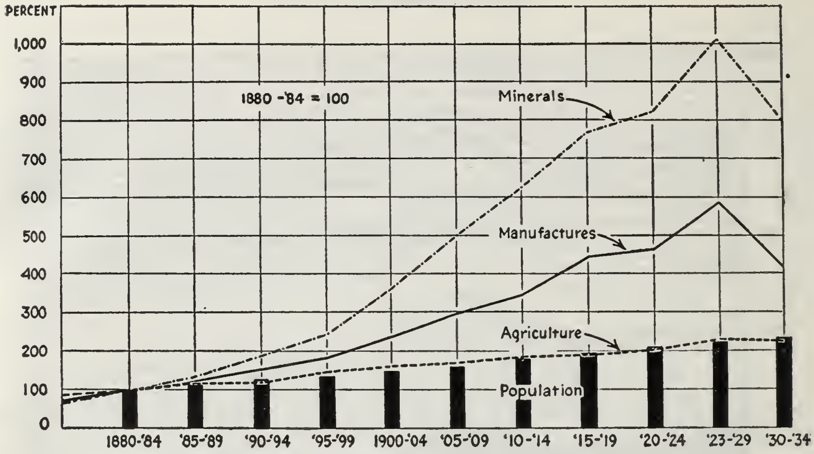


Chart III showed the relative shifts which have taken place in the occupation of the American population during the past three generations, and chart IV the relative shifts in contribution to national income. Chart V shows corresponding shifts in volume of goods produced. It will be seen that the volume of agricultural production has increased much more gradually than the volume of mineral and manufacturing production, and has been subject to less violent fluctuations. The rate of increase of production of agricultural commodities has followed rather closely the rate of increase of population, thus reflecting a relatively inelastic demand for foodstuffs. The rate of increase of mineral and manufactured goods, by mounting much more rapidly, has reflected a relatively elastic demand for nonagricultural commodities.

The farm income displayed in charts I, II, and IV is the best available computation of agriculture's contribution to national income, as shown in tables 1 and 2.

The farm income displayed in charts VI to XXI is income actually received and spent by farmers, as shown in tables 3, 4, and 5.

Chart VI. Farm Production, Prices, and Gross Income

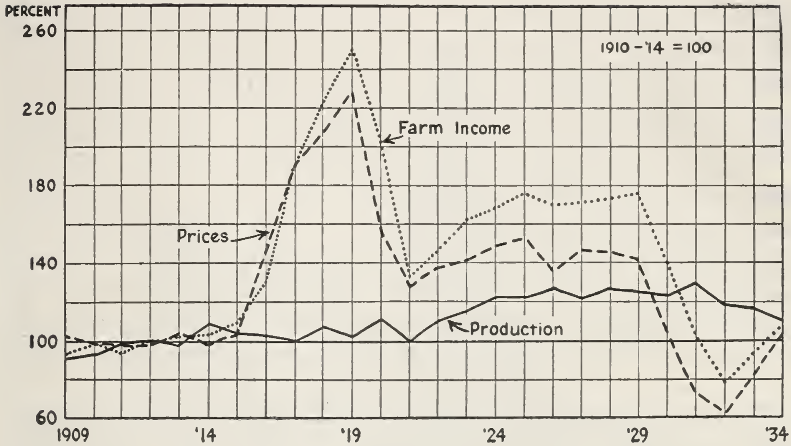
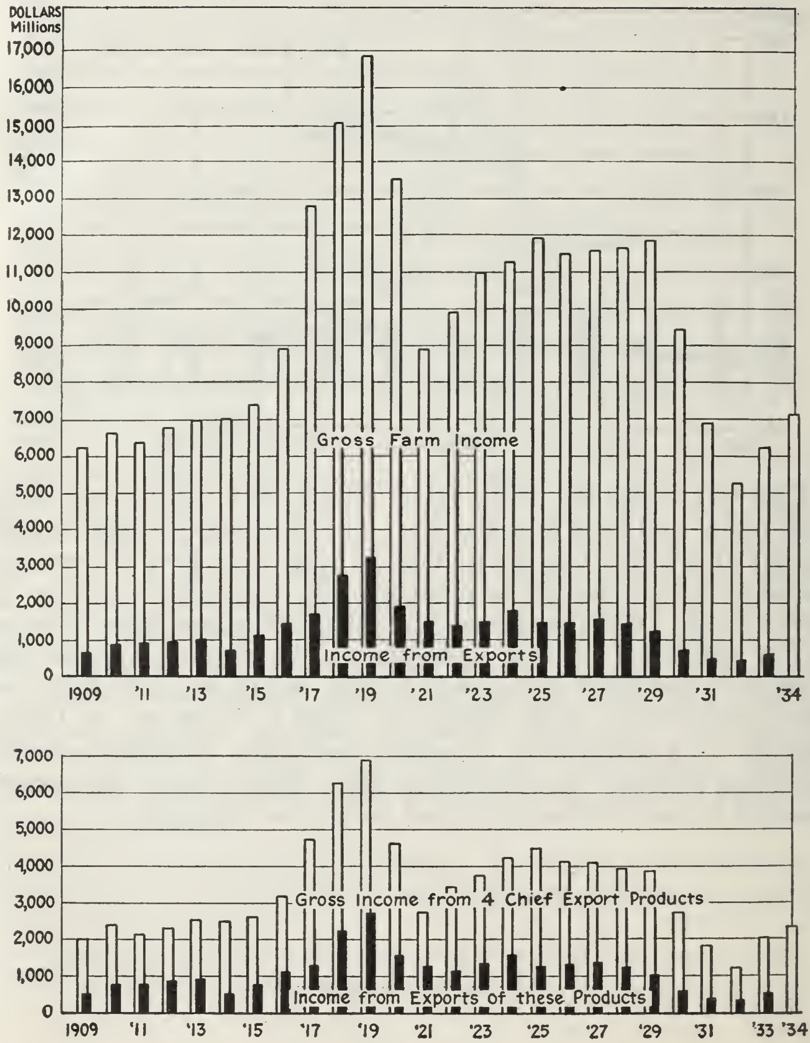


Chart VI shows the course taken since 1909 by farm production, farm prices, and gross farm income. The movement of the price and income lines shows that fluctuations in price have been of more importance than variations in production in changing the amount of farm income. War-time demand forced up prices, and hence income, out of proportion to farm production. Following 1929, slackening demand caused prices and income to drop rapidly to points far below their pre-war levels, while production failed to contract. In 1933 a number of governmental measures, including production-control programs, reversed the downward price trend, and in 1934 prices rose still further as drought reduced production drastically.

Chart VII. Gross Farm Income and Income from Exports



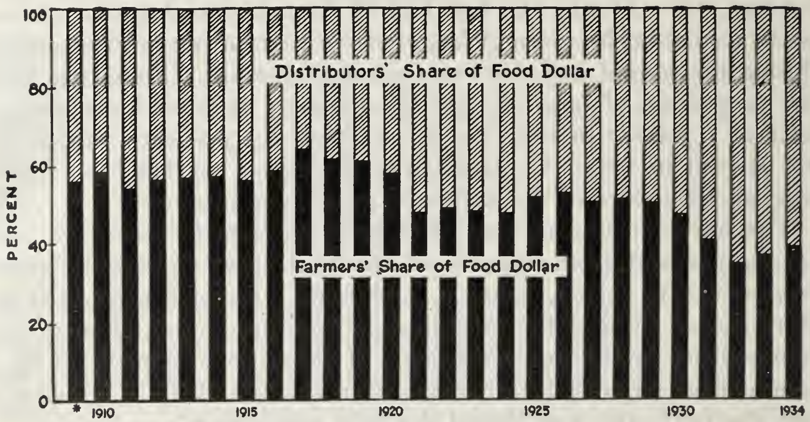
Loss of the American farmer's export market has been an important factor in the decline of gross farm income in recent years. The upper portion of chart VII compares the gross farm income from all prod-

ucts with the income from exports. The farm value of exports accounted for 13.4 percent of gross income in 1910; it rose to 19.3 percent in 1919. During the first half of the post-war decade, farm exports accounted for more of farm income than in the pre-war period; during the second half, for less than that amount. Following 1929, the proportion of farm exports (in a greatly reduced farm income) sank to 7 percent in 1931, barely over half the pre-war ratio; it was 9.9 percent in 1933. Contraction of the export market has contributed about a third of the decline in gross farm income.

The lower portion of chart VII presents farm income from total production and from exports of the four most important export crops—wheat, cotton, tobacco, and hogs. Exports accounted for more than a third of the total income from production of these four commodities in the pre-war years. If the ratio of exports of these commodities to gross farm income from them in 1910–14 is taken as 100, the 1931 ratio was 70 and the 1933 ratio was 85.

Reduced foreign takings affected gross farm income both directly and indirectly. The decline in volume of foreign sales directly reduced the contribution of the export market to American farm income. The unsold commodities which continued to be produced in this country even though they were no longer consumed abroad broke prices at home. As a result, the domestically consumed portion of the great export crops also yielded a decreasing amount of farm income in spite of the fact that domestic takings were not greatly reduced.

Chart VIII. Farmers' and Distributors' Shares of Consumers' Food Dollar



*1910-14 average

Figures on 10 foods indicate that between 1910 and 1934 there were considerable fluctuations in the number of cents going to the farmer from each dollar spent by consumers for those foods. Just before the war the farmer received some 56 cents out of every dollar spent by consumers for beef, pork, hens, butter, cheese, potatoes, flour, bread, eggs, and milk. With the war-time rise of prices, his share climbed to 64 cents. From 1921–24 it was around 48 cents; from 1925–29, a little over 50. But with the price declines of the 1930's, the farmer's share for these foods dropped to 34.9 cents on the consumer's dollar in 1932. In 1933, his share, including processing tax, was 37.7 cents; in 1934, it was 42.7 cents.

A comparison of the farm and retail value of the amount of 10 foods used per month by a typical family shows the following changes:

	Retail value	Distributors' margin	Farm value [1]
April 1929	$25. 93	$12. 81	$13. 12
April 1933	15. 29	10. 05	5. 24
September 1933	18. 37	11. 02	7. 35
April 1934	18. 33	10. 68	7. 65
April 1935	21. 42	10. 69	10. 73

[1]Includes processing tax on wheat of 31 cents, September 1933, and on wheat and hogs of 83 cents, Apr, 1934–35.

Farm value of identical quantities of these foods fell $7.88 from April 1929 to April 1933 while distributors' margin fell $2.76. From April to September 1933, their retail value rose about $3; of which a third went to distributors and two-thirds to farmers. A second equal increase between April 1934 and April 1935; almost all going to farmers.

Chart IX. Relatively Stable Profits of Food Industries

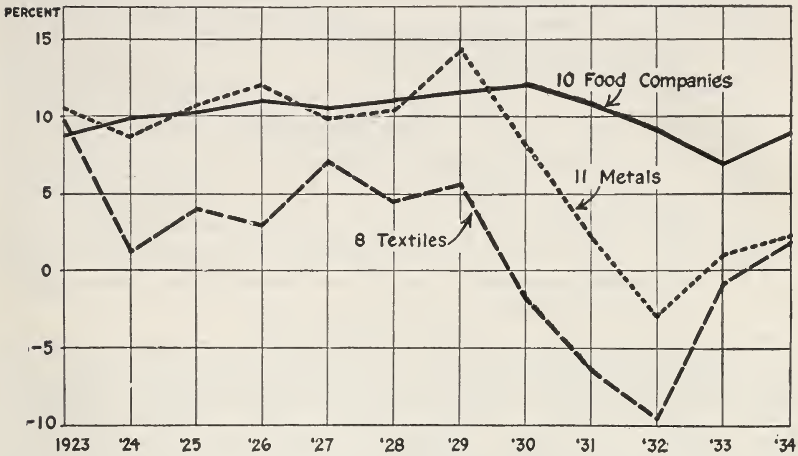


Chart VIII showed the extent to which the farmers, rather than the processors and distributors of food products, absorbed the price declines of the depression years. Chart IX shows the extent to which the steady flow of agricultural goods to market enabled food manufacturing corporations to maintain their profits during the depression years.

Comparison of net returns to capital of 10 food manufacturing corporations, 11 metals, and 8 textiles for the years 1923–34 shows how the three primary factors of a constant supply of raw materials, a dominant position in the market, and a relatively inelastic demand for food products yielded to the food corporations returns of better than 10 percent from 1924 through 1931, and returns of almost 7 percent in 1933. During the same period a relatively elastic demand for metals pushed returns for those corporations to 14 percent in 1929 only to contract until a 3-percent loss was incurred in 1932. In spite of a constant flow of raw materials to market and a relatively constant demand for cotton cloth, textile profits were smaller and more uncertain in good times, and textile losses far greater during the depression, than in the other two lines of business activity cited. This was due to a spindle capacity in the industry far exceeding that required to fill available orders, which placed the textile manufacturer in a competitive position analogous to that of the farmer.

Chart X. Farm and Parity Prices, 1932–35

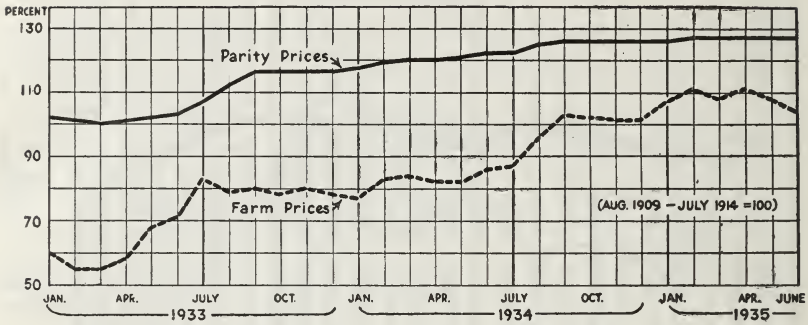


Chart X gives the movement of farm and parity prices from January 1933 to June 1935. It will be seen that farm prices rose sharply during the first half of 1933 and then receded slightly during the latter months of the year. During the first half of 1934, there was a gradual rise, steeply accentuated in the third quarter as the effects of the drought began to be felt. This in turn flattened out during the autumn, but started up again at the year end. After April 1935, a recession took place as the new crop year got under way.

Parity prices rose considerably during the third quarter of 1933. From then on the rise has been very gradual. The total change was from a low point of 100 in March 1933 to 127 in February 1935. Since that date, the level has remained unchanged.

The ratio of farm prices to parity prices was 54 at the lowest point in February 1933. By April 1935, it had reached 87. In June 1935, it was 82.

Chart XI. Factory Production and Wholesale Prices

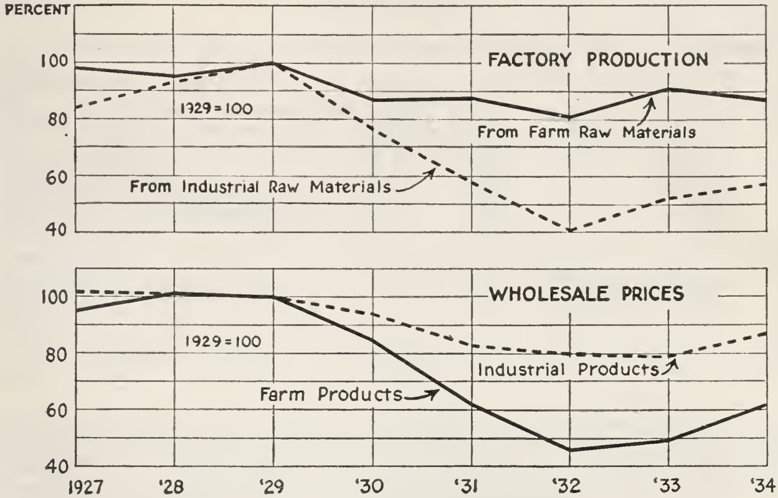


Chart VI showed the extent to which volume of production was maintained by agriculture as prices fell after 1929. Chart V showed the extent to which volume of industrial production contracted during the same period.

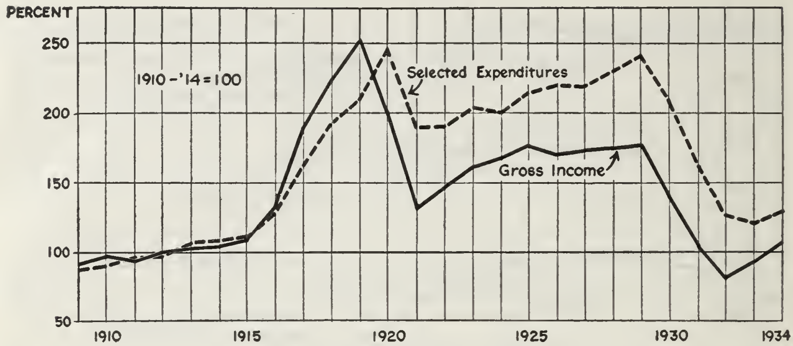
Industrial retrenchment during the depression operated to maintain price at the expense of volume of sales and hence of employment. Agricultural production operated to maintain volume of sales at the expense of price and hence of farm income.

These divergent tendencies can be measured by charting production of factories using chiefly agricultural raw materials against production of factories using chiefly nonagricultural raw materials, and comparing the wholesale prices of industrial and farm products.

At the low point of 1932, production in factories using agricultural raw materials was 31 percent of its 1929 level; wholesale prices of farm products were at 46; production in factories using nonagricultural raw materials was 41 percent; industrial wholesale prices were at 80 percent. An example is the fact that between 1929 and the spring of 1933 iron and steel production dropped 83 percent while prices fell only 20 percent; during the same period, factory production of food products fell only 14 percent while farm prices dropped 49 percent.

At the end of 1934, both industrial wholesale prices and production of factories using agricultural raw materials were about 13 percent below 1929 levels; wholesale prices of farm products and production of factories using nonagricultural raw materials were about 40 percent below 1929 levels. The strain caused by industrial restriction and farm maintenance of supply as demand fell has thus lessened in the last 2 years.

Chart XII. Gross Farm Income and Production Expenses



Gross farm income from 1909–34, expressed as a percentage of the gross farm income of the years 1910–14, and the part of that income absorbed by selected expenditures, for production purpose, expressed as a percentage of the amount so absorbed in 1910–14, are compared in chart XII.

The proportion of farmers' gross income absorbed by their business expenses has by no means maintained a constant relation to the total.

During the war, farmers' income rose faster than their costs; after the war, farmers' income fell out of relation to their production expenses.

The proportion of their gross returns which farmers used for production expenses fell from 30.2 percent in 1909 to a low of 28.4 percent in 1919. With the 1920's, the part so used rose again until by 1929, it took 43.8 percent of gross income. In 1932, it took 51.7 percent. Preliminary estimates, however, indicate that in 1934 selected expenditures dropped back to 38.9 percent of gross returns.

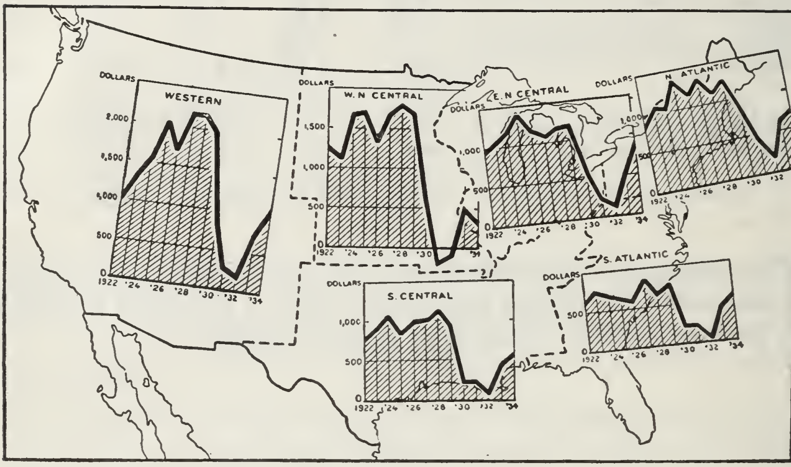
The items included in these expenditures are given below as percentages of gross farm income:

INDIVIDUAL ITEMS AS PERCENTAGES OF GROSS FARM INCOME

	1909	1919	1929	1932	1934
Wages (cash and board)	10. 5	8. 0	10. 0	8. 9	6. 2
Feed	4. 8	6. 5	7. 7	7. 7	5. 6
Fertilizer	1. 8	1. 9	2. 3	2. 1	1. 9
Taxes	4. 2	2. 2	6. 5	11. 8	7. 4
Mortgage interest	3. 2	2. 8	4. 6	9. 6	5. 8
Ginning	. 5	. 5	. 7	1. 0	. 7
Machinery (purchase and operation)	5. 2	6. 5	12. 0	10. 6	11. 3
Total	30. 2	28. 4	43. 8	51. 7	38. 9
Available as a return for operators, labor and capital	69. 8	71. 6	56. 2	48. 3	61. 1
Total	100. 0	100. 0	100. 0	100. 0	100. 0

The percentage of the farmers' gross income available as a net return for their labor and capital thus ranged from 71.6 percent in 1919 to 48.3 percent in 1932. It was 61.1 percent in 1934.

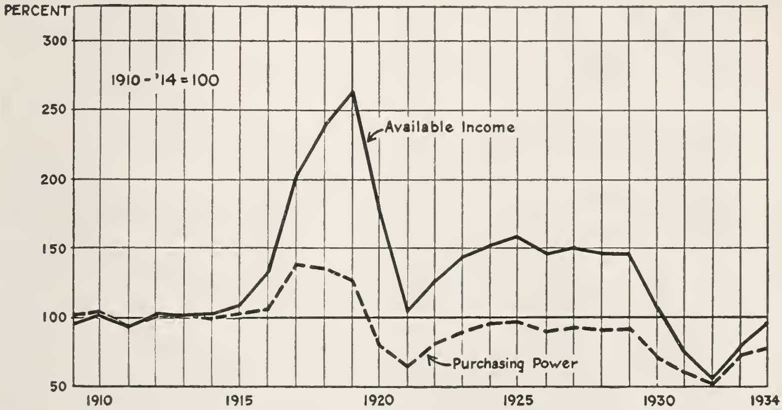
Chart XIII. Farm Returns by Regions



Sectional differences in the average net returns obtained from their farms since 1922 by farmers reporting to the Department of Agriculture are displayed on chart XIII. The average net return from operating these farms, for the United States as a whole, varied from a high point of $1,334 in 1928 to a low of $66 in 1932. In 1934 it was $624.

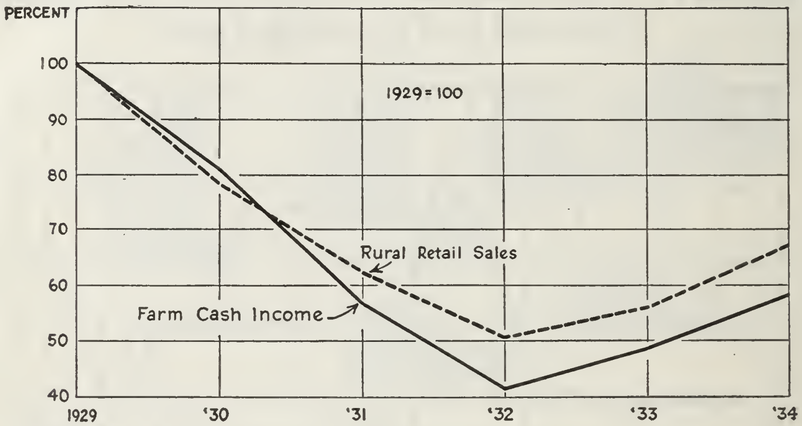
Average returns by sections showed differences, more or less constant except in years of extreme depression, between the returns usually obtained in various farm areas. The sections also differed in regard to the year in which peak returns were obtained, in regard to the extent to which returns were reduced or turned into net losses in 1932, and in regard to degree of recovery in 1933 and 1934.

Chart XIV. Farm Income Available After Production Costs and its Purchasing Power



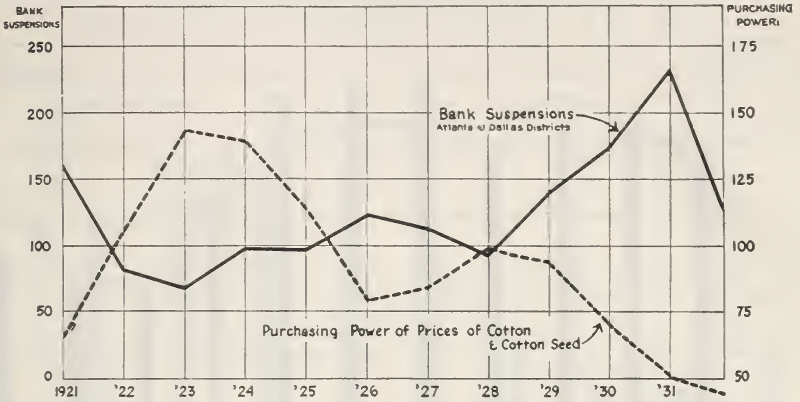
The course of available farm income, 1909–34, arrived at by subtracting from gross income the amount spent on production expenses, is shown in chart XIV. Comparison of the index of this income available for the farm-family living with the cost of the goods for which it is normally spent, shows the purchasing power of the farm family for consumers' goods produced elsewhere than on the farm. Throughout the period since the end of the war this purchasing power has never reached its pre-war level. In 1932, it was only 52 percent of what it had been before the war. In 1934 it stood at 79 percent of its pre-war level.

Chart XV. Farm Cash Income and Rural Retail Sales



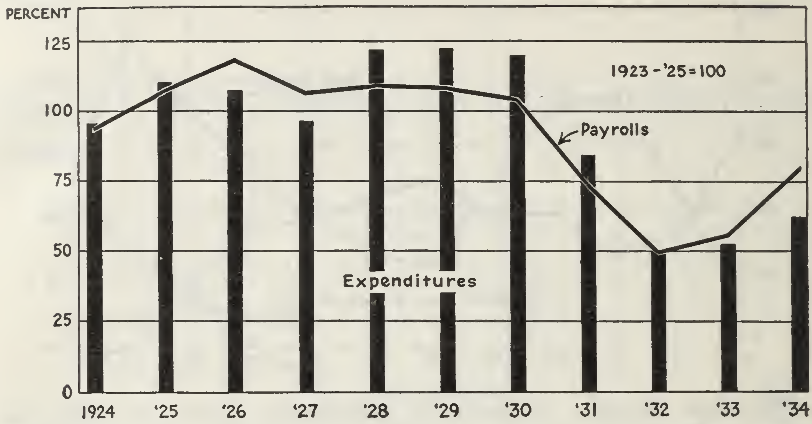
The upturn of farm cash income in 1933 was promptly reflected in an upturn of rural retail sales. In 1932 farm cash income fell to 41.3 percent of its 1929 level. Rural retail sales, based on mail-order house and chain-store figures, fell during the same period to 50.5 percent of what they had been in 1929. By 1934 farm cash income reached 58.1 percent of its 1929 figure; rural retail sales rose to 67 percent of their 1929 level.

Chart XVI. Cotton Buying Power and Bank Failures



The close relation between the purchasing power of cotton and cottonseed prices, and bank suspensions in the Cotton Belt, illustrates the extent to which the soundness of the country's financial structure depends on the maintenance of farm income. When cotton purchasing power is up, bank suspensions fall off. When the cotton farmers' capacity to consume is impaired, bank failures in the Atlanta and Dallas Federal Reserve Districts become more frequent.

Chart XVII. Farmers' Fertilizer Expenditures and Fertilizer Industry Pay Rolls



Variations in farm purchasing power directly affect the pay rolls of industries whose products are bought largely or wholly by farmers.

Chart XVII illustrates this by comparing American farmers' purchases of fertilizer with pay rolls in the fertilizer industry from 1924 to 1934.

Chart XVIII. Farmers' Machinery Expenditures and Agricultural Implement Industry Pay Rolls

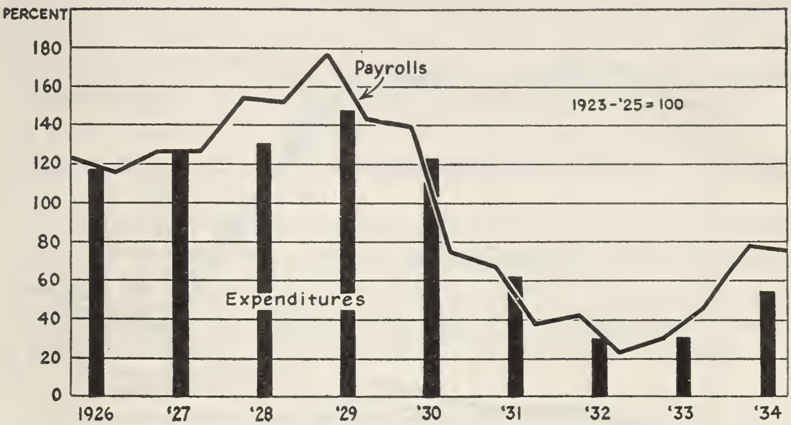


Chart XVIII compares American farmers' yearly expenditures for farm machinery with pay rolls averaged by 6-month periods, in the agricultural implement industry.

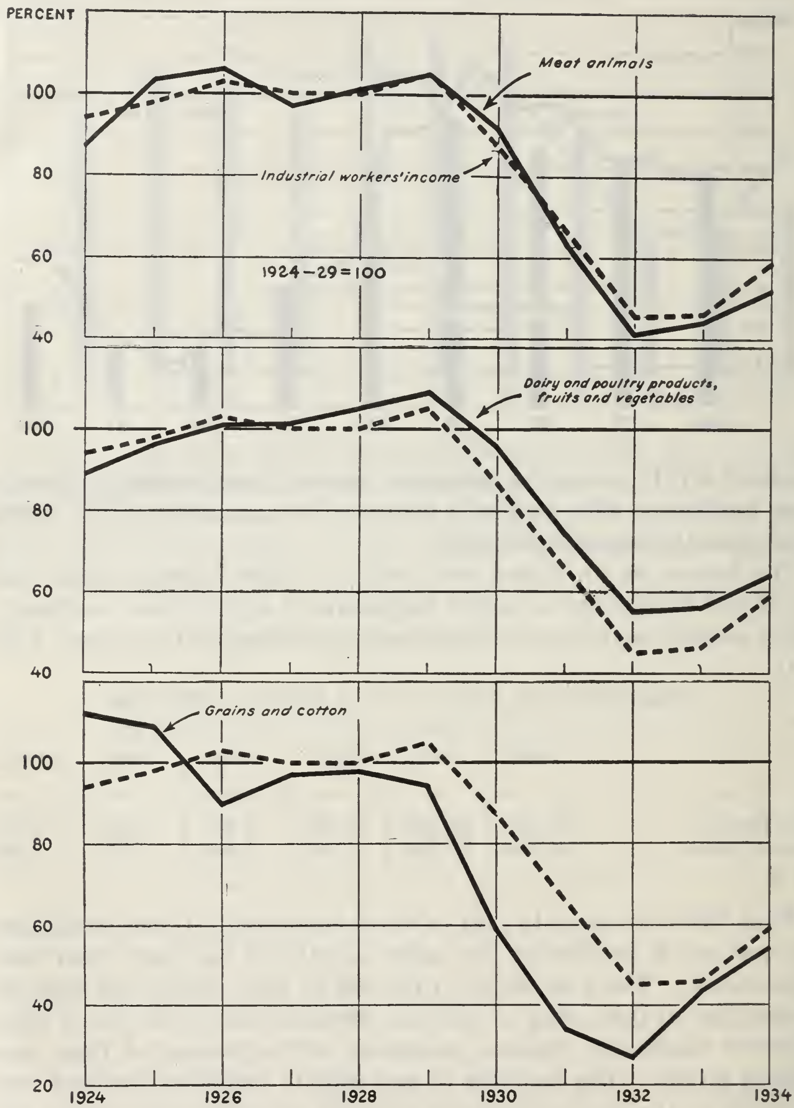
The figures shown in the chart take on added interest when compared with the figures on carlot shipments of agricultural machinery, which indicate movement of implements according to the season of the year.

CARLOADINGS, 1929–34, BY 6-MONTH PERIODS

	1929	1930	1931	1932	1933	1934
First period	61, 655	53, 066	24, 391	8, 849	6, 478	15, 285
Second period	36, 744	20, 508	7, 567	3, 418	7, 372	9, 563

Thus 1933 was the only year in which movement of farm machinery was not much heavier in the early months of the year than after midsummer. The movement in the fall of 1933, which not only exceeded that of the spring of 1933 but doubled that of the fall of 1932, indicates machinery dealers' estimates of the revival of farm purchasing power. The response of pay rolls to increased demand took pay rolls in the last half of 1933 to 150.7 percent of what they had been in the preceding 6 months. The 1934 figures, with carloadings for the second 6 months at 62.6 percent of the first 6 months and pay rolls at 95.9 percent, indicate a situation more like that of the predepression years than any since 1929.

Chart XIX. Workers' Pay Rolls and Farm Receipts From Foodstuffs



The level of factory pay rolls is a matter of direct concern to the farmer. The amount spent annually by the American people on

food is closely related to the national income. Chart XIX compares farm cash income from certain foodstuffs with industrial workers' income for the past decade. Of the three groups studied, farm returns from meat animals fluctuated most closely with pay rolls, farm returns from dairy and poultry products and fruits and vegetables maintained a slight advantage during the depression, and farm returns from grains and cotton showed least correlation with city pay rolls because of the large portion of total production of those commodities that is normally sold abroad.

The upward movement of the grains and cotton line following 1932 shows the price-supporting effect of the commodity control programs and the Government's monetary policy. The upward movement in urban income following the 1933 rise in agricultural purchasing power is in part a reflection of the city effect of increased rural sales.

Chart XX. Migration to City and Factory Employment

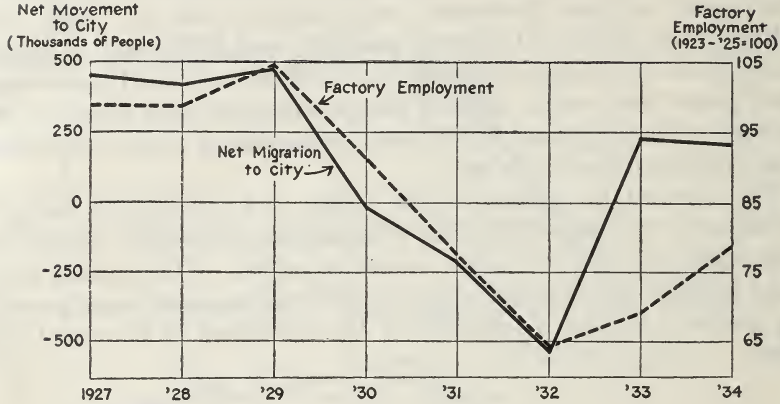
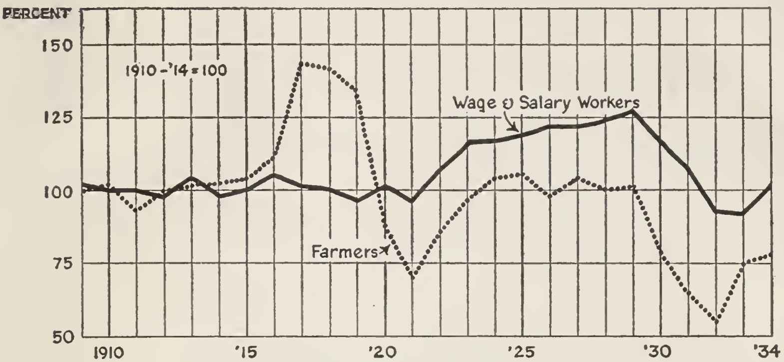


Chart III showed the allocation of gainful workers among various occupations during recent years. The decreasing proportion of workers in agriculture, and the increasing proportion of workers in city occupations, reflect a migration from farm to city which has been a characteristic long-term population movement. The figures on the net migration cityward are roughly a resultant of the drawing power, on the one hand, of income obtainable on farms, and the drawing power on the other hand, of industrial production, pay rolls, and employment. The sharp drop in the latter, following 1929, caused a reversal in the direction of net migration; for the 3 years 1930–32, more people left cities for farms than left farms for cities. In 1932, the excess in the direction of farms was over half a million, an amount comparable to the cityward movement in the years before 1929. This movement reflected the fact that the farm owner, no matter how much his cash income may dwindle, still has a certain amount of shelter and food which he can consume directly without having to pay for it, whereas the city worker whose income has ceased has no resources other than the relief roll. In 1933 and 1934 the direction of net migration again turned cityward, though at rates considerably below the rates of the 1920's.

Chart XXI. Per Capita Buying Power of Farmers and Industrial Workers



Available farm income is the income which provides the farm-family living. Wages and salaries are the income which provides city-workers' living. The purchasing power of these amounts indicates what sort of an income, in terms of goods, farmers and workers can have at a given date.

Chart XXI compares the purchasing power of wages and salaries and available farm income for the years 1910–34. It shows that from 1915 to 1919 the farmer had a considerable advantage in purchasing power over the city worker, whose purchasing power remained close to its pre-war level until after 1921, but that since 1920 the per capita purchasing power of available farm income has never risen more than slightly above its pre-war level and has suffered two deep depressions, whereas the per capita level of wages and salaries stayed well above its pre-war level throughout the decade 1922–31, and returned to that level in 1934 while that of the farmer was still 22 points below its pre-war average.

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